was some degeneration in the posterior commissure, the habenular ganglion, the tenia of the optic thalamus on the same side, and in both Meynert's bundles. (*b*) Considerable diminution of the gray substance of the aqueduct in the region of the anterior corpus quadrigemina was found. (*c*) Great degeneration of the nerve cells and of the diffuse gray substance of the substantia nigra of the same side. (*d*) There was a slight diminution in the size of the pons on the same side. (*e*) Some atrophy of the nerve cells of the descending root of the fifth nerve existed on the opposite side to the lesion. (*f*) Degeneration of the corpus callosum and of the anterior also existed. The secondary consequences of the removal of the posterior part of the cortex were: (*a*) Complete degeneration of both dorsal and ventral nuclei of the external corpus geniculatum. (*b*) Complete degeneration of the nerve cells and diffuse gray substance of the internal corpus geniculatum, some normal and medullated fibres still remaining in its ventral portion. (*c*) Some degeneration of the anterior corpus quadrigemina as observed by v. Monakow and others. (*d*) Little or no degeneration in the posterior corpus quadrigemina. (*e*) Some, but not great degeneration in the anterior brachium of the posterior corpus quadrigemina. B. M.

THE NERVE-SUPPLY OF THE SENSE OF TASTE.

John Ferguson, M.D., L.R.C.P. (Medical News, October 18, 1890,) states that although the lingual branch of the fifth nerve and the gustatory branches of the glossopharyngeal carry the nerve-fibres of taste to the tongue and palate, it was doubtful whether these nerves were the real supply to the parts of taste, or whether they carried nerve-fibres from some other source.

One of his patients had complete loss of taste on left side of tongue, extending to the tip, but the posterior part of the tongue, fauces and palate retained the power of taste. The patient died of phthisis, and on autopsy a small exostosis was found in the scaphoid fossa pressing upon the posterior opening of the Vidian canal and by pressure destroying the Vidian nerve. The nerve degeneration could be traced along the Vidian, and thence along its two branches, the carotid and petrosus major. This latter enters the geniculate ganglion of the facial. The degeneration could be followed until the point was reached at which the chorda tympani is given off. The degeneration here left the facial and followed the chorda tympani throughout its length.

This condition of secondary degeneration was traced from the chorda tympani to the lingual branch of the third division of the fifth nerve, and thence along the lingual.

From this case he concludes we have complete proof that the nerve-supply of taste for the tip and anterior part of the sides of the tongue comes from the fifth nerve and enters the superior maxillary division of the same nerve. The course must then be from the superior maxillary nerve into the spheno-palatine ganglion, thence by the Vidian, through the Vidian canal, to the gangliform enlargement of the facial, along this to the chorda tympani, through the chorda tympani into either the lingual, a branch of the third, or inferior maxillary of the fifth. A. F.

THE CEREBRAL CONVOLUTIONS.

In an address before the British Medical Association, Prof. Cunningham (Boston Medical and Surgical Journal, October 23, 1890) states that the chief differences between the hemispheres of the human and lower forms of the primate brain consist, first, in greater richness of secondary furrows and convolutions in man, and, second, in the greater tendency of the chief fissures in the human brain to be bridged over or interrupted by small gyri. Discussing the influences by which the furrows and convolutions are produced, he says the geometrical law involved is simply this, that in the growth of a body the surface increases with the second, but the interior with the third power of the radius. From this it is evident, seeing that the proportion of internal white matter and external gray matter is in all cases a uniform one, that in the evolution of a large animal out of a small animal, a disproportion between the gray capsule and the white core of the cerebrum must result. This is compensated for by the extended cortex placing itself in folds or puckers, and thereby reducing the capacity of the capsule to a degree which brings it into correspondence with the white contents; consequently, the formation of the convolutions and furrows is the result of the tendency on the part of the superficial layer to increase by surface extension, and of a mutual space accommodation of the gray substance and of the white conducting paths. A. F.